## ARTICLE 5. NUCLEAR MEDICINE TECHNOLOGIST CERTIFICATION

#### **R-12-2-501. Definitions**

"ARRT" means the American Registry of Radiologic Technologists.

"ASCP" means the American Society of Clinical Pathology.

"Authorized User" means a physician licensed in Arizona to practice medicine and who is identified as:

An authorized user on an Agency, Nuclear Regulatory Commission

(NRC), or Agreement State license that authorizes the specified medical use; or

A user in a medical use broad scope program, licensed by the Agency,

NRC or Agreement State to select its own authorized users.

"Brachytherapy" means a method of radiation therapy in which a sealed source or group of sealed sources is utilized to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary, intraluminal, or interstitial application.

"Certification" means the process by which the Board grants permission and recognition to an individual to engage in nuclear medicine technology upon finding the individual has met the qualifications specified by statute and rule. "Certified Nuclear Medicine Technologist" means a person certified and/or registered by the American Registry of Radiologic Technologists, the Nuclear

Medicine Technology Certification Board, the American Society of Clinical

Pathologists, or the Arizona Medical Radiologic Technology Board, other

than a licensed practitioner, who performs in vitro detection and measurement
of radioactivity and who may perform the administration of

radiopharmaceuticals to human beings for diagnostic and therapeutic purposes
and with Board approved training may perform the CT portion of a PET/CT
scan while under the supervision of a licensed practitioner who is an
Authorized User.

"Diagnostic Dosage" means a radionuclide or radiopharmaceutical, which is intended for diagnostic purposes.

"Medical use" means the intentional internal or external administration of byproduct material or the radiation from byproduct material to patients or human research subjects under the supervision of an authorized user.

"Misadministration" means:

The administration of a radiopharmaceutical or the radiation from a sealed source, administered for therapy purposes and involving:

The wrong radiopharmaceutical or sealed source; or

The wrong patient; or

The wrong route of administration; or

A dosage to an individual that differs from the prescribed dosage by 20%; or

The administration of a diagnostic dosage of a radiopharmaceutical

#### involving:

The wrong patient; or

The wrong radiopharmaceutical; or

The wrong route of administration; and

A dosage to an individual that exceeds 5 rems effective dose equivalent or 50 rems dosage equivalent to any individual organ; or

A therapeutic radiation dose from a sealed source such that errors in the source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose differing from the final, prescribed total treatment dose by more than 10 percent.

"NMTCB" means the Nuclear Medicine Technology Certification Board.

"Radionuclide" means a radioactive element or a radioactive isotope.

"Radiopharmaceutical" means any drug that exhibits spontaneous

disintegration of unstable nuclei with the emission of nuclear particles or

photons and includes any nonradioactive reagent kit or nuclide generator that

is intended to be used in the preparation of any such substance.

"Radiopharmaceutical" means a radionuclide or a radionuclide compound designed and prepared for administration to human beings.

### <u>Supervision</u>

"Direct Supervision" means guidance, direction, and instruction by an authorized user who is personally aware of, and maintains independent

professional responsibility for the procedure intended for a given patient, and is present in the facility and is available for immediate assistance.

"General Supervision" means supervised by an authorized user who is available but not necessarily within the individuals place of employment.

"Immediate Supervision" means in room presence for instruction, direction and guideance by an authorized medical user who is available to assume control of the given procedure.

"Therapeutic dose" means a radionuclide or radiopharmaceutical, which is intended for therapeutic purposes.

#### **R12-2-502.** Use of Title

A person holding a certificate may use the title "nuclear medicine technologist."

No other person shall be entitled to use such title or letters after such person's name that indicates or implies that such person is a certified technologist or to represent himself in any way, whether orally or in writing, expressly or by implication, as being so certified.

#### **R12-2-503. Display of Certificate**

Every technologist, including part-time and technologists staffed through temporary employment agencies or services, shall display proof of certification by the Arizona MRTBE.

# R12-2-504. Application for Approval of School Nuclear Medicine Technology

A. An applicant seeking approval for a nuclear medicine school shall apply by

letter and shall address all of the concerns for school approval as required in R12-2-505.

B. The Board shall review a school application in a timely manner as required in R12-2-301 and approve or deny the application.

## R12-2-505. Standards for Schools of Nuclear Medicine Technology; Approved Schools of Nuclear Medicine Technology

The Board may approve a school of nuclear medicine technology as maintaining a satisfactory standard if its course of study:

- A. Is for a period not less than twelve months of full-time study or the

  equivalent and is accredited by the Joint Review Committee on Education in

  Nuclear Medicine or meets or exceeds the standards of the Joint Review

  Committee on Education in Nuclear Medicine as determined by the Board.
- B. Includes not less than 1900 contact hours including but not limited to:

  methods of patient care, radiation safety and protection, nuclear medicine

  physics and radiation physics, nuclear instrumentation, statistics, radionuclide

  chemistry and radiopharmacy, departmental organization and function,

  radiation biology, nuclear medicine in-vivo and in-vitro procedures,

  radionuclide therapy, computer application, clinical education, and medical

  law and ethics.
- C. The Board shall maintain a list of approved schools.

### **R12-2-506.** Grandfather Clause

A. <u>Individuals practicing nuclear medicine who are not eligible for</u>

- certification by the Board may apply for a temporary certificate as provided in A.R.S. §32-2814 (C) and (D).
- B. <u>Individuals not eligible for certification by the Board shall pass a</u>

  certification examination approved by the Board no later than December

  31, 2004.
- C. Effective January 1, 2005 all applicants for certification must provide proof of current certification by a certifying body approved by the Board.
- D. Effective January 1, 2005, applicants who are not certified by a certifying body approved by the Board but who meet the educational requirements to sit for a certification examination administered by a certifying body approved by the Board may apply to take a certification examination approved by the Board.